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Regional Energy Innovation Zones Commission

West Midlands Sustainability Context

6 October 2017

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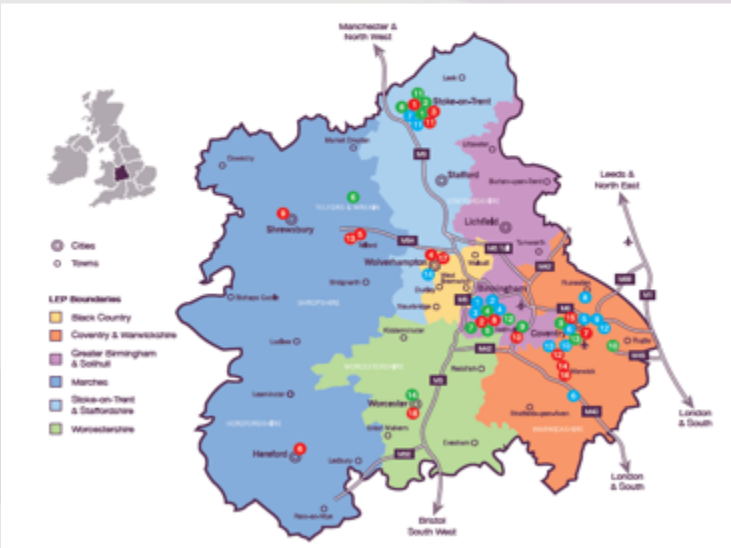

The sustainability adviser for leaders of the West Midlands region, UK

Created in 2002 as a not-for-profit company

Government recognised independent 'sustainability champion body' for West Midlands and advisor to West Midlands Combined Authority

Board is private sector led and cross-sector representative

Catalyst for action with over 50 member organisations and 2,000 individuals in networks in the private, public and voluntary sectors

Based in Birmingham, UK – covers geography of 1 Combined Authority, 6 Local Enterprise Partnerships, 33 local councils

Our vision is that by 2020 businesses and communities are thriving in a West Midlands that is environmentally sustainable and socially just.

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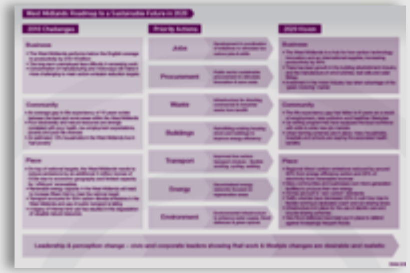
What we do



Policy – evidence base and independent monitoring

"Critical friend" - sustainability roadmap to focus cross-sector action & reviews, based on £1m research, reported on annually – only one in UK

Outreach – cross sector networks and communications

"Network of Networks" – good practice events for green business clubs, communities, hospitals, universities, research, local enterprise partnerships, local authorities, for over 4,000 people a year. Our communications reaches over 10,000 per month

Investment – promoting and securing

"Broker" - promoted over £1.5 billion of funding to local businesses and communities. Inward investment support

Programmes – development and delivery

"Intelligent Client" - delivery of £1m Government fund which resulted in over £5m worth of energy saving in councils and community groups

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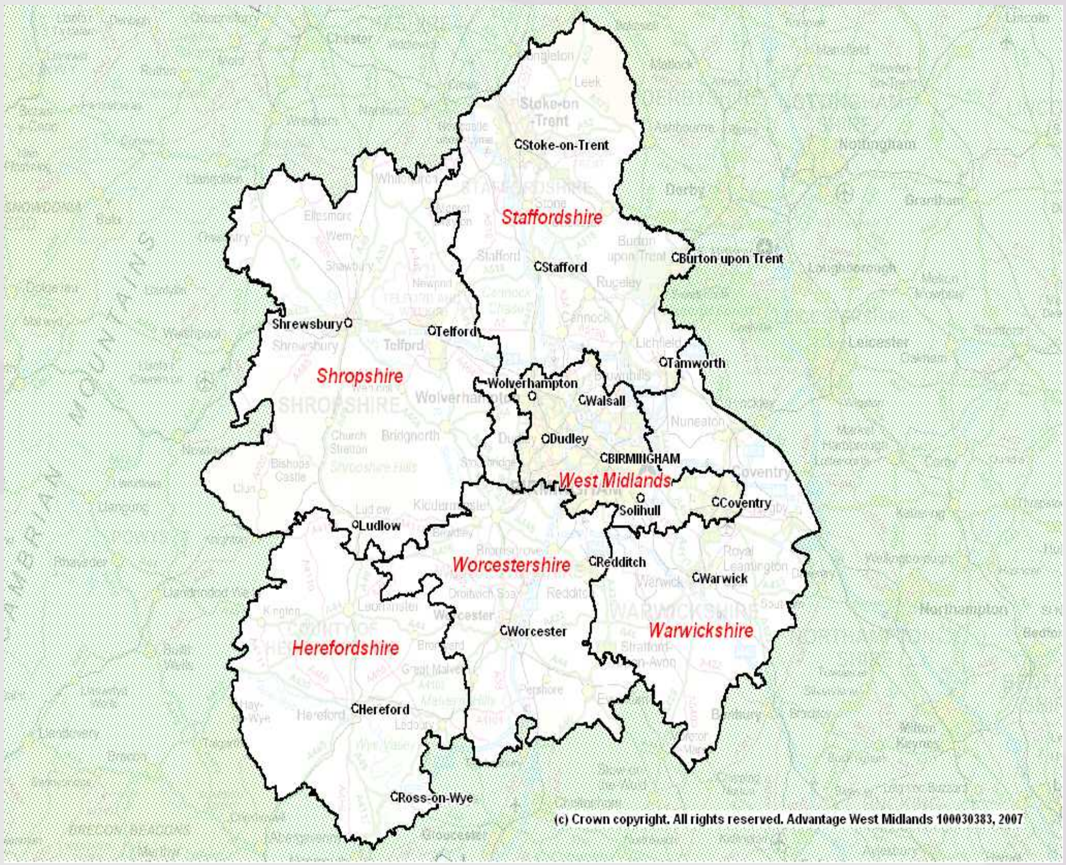
Our Patch - the West Midlands



5.3 Million people – 9% of UK total

Birmingham is 2nd largest city in UK – population of more than 1 million.

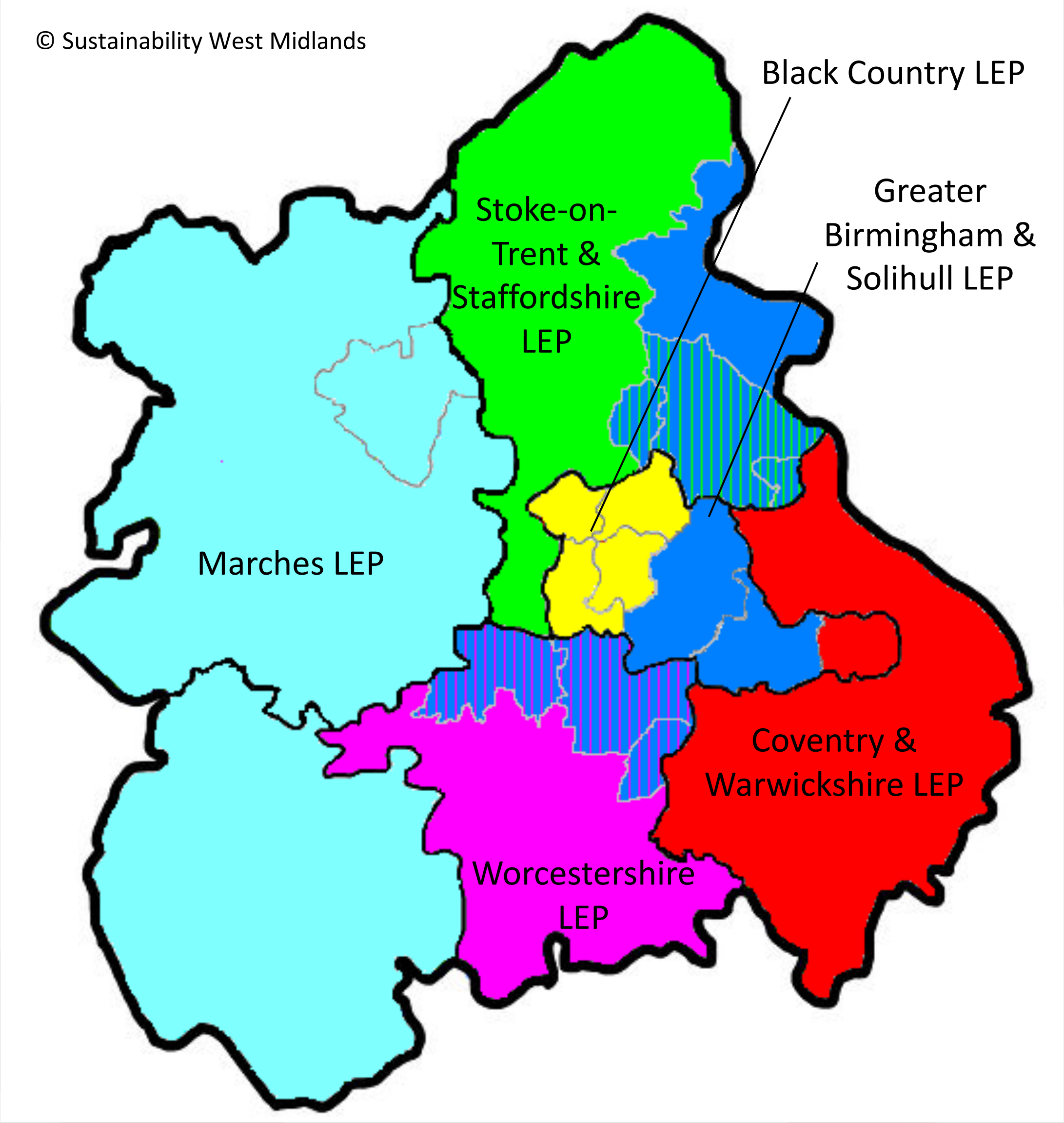
75% of the UK 's population is within 5 hours drive.

Most ethnically diverse region in the UK outside of London.

80% of the region is rural

Highest concentration of manufacturers in the UK

West Midlands Local Enterprise Partnerships (LEPs)



West Midlands Combined Authority

Currently includes Black Country, Birmingham & Solihull, Coventry & Warwickshire LEPs as core members

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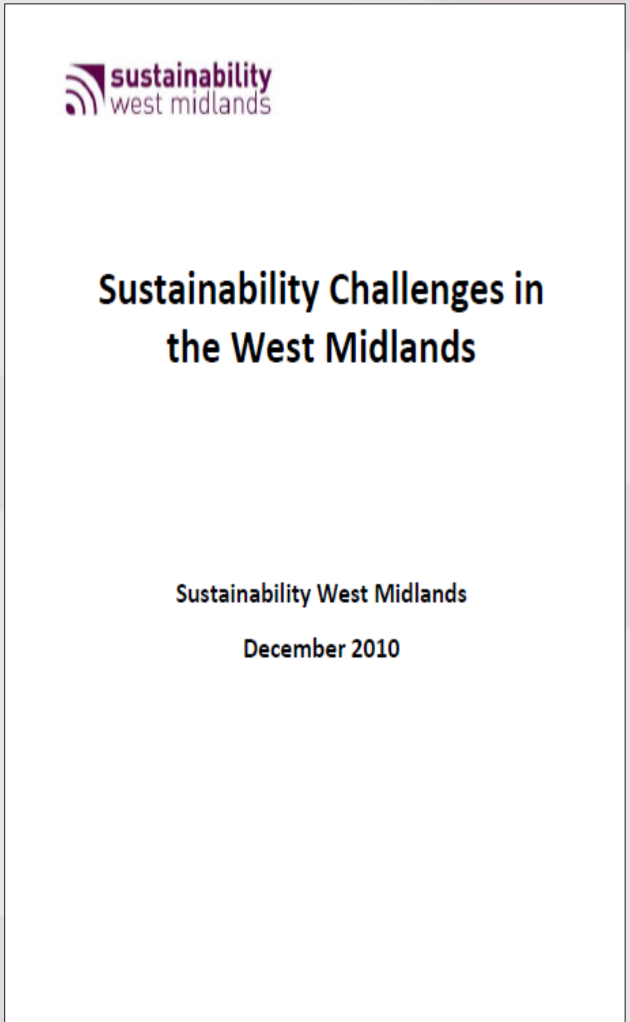
Our Challenges - 2010



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Sustainability Challenges in the West Midlands

Sustainability West Midlands

December 2010

The Productivity Gap - £10-15 billion per annum compared to UK average – productivity & long-term unemployment

The Carbon Gap – additional local measures needed to meet national targets, manufacturing base, centre of road network, and no-offshore facilities

Quality of Life Gap – health inequalities – gap of 10 years of life expectancy between different places in region.

Marketing Gap – poor promotion within and outside region of good sustainability practice – but has changed since 2010

Leadership Gap – varied understanding on sustainability as overall framework for action, business often ahead of public sector, sub-regional governance ‘unfinished & uncertain’

Our Plan – 2010-2020 Roadmap

2010 Challenges

Business
- The West Midlands performs below the English average in productivity by £10-15 billion
- The long-term unemployed face difficulty in accessing work
- Concentration of manufacturing and motorways will make it more challenging to meet carbon emission reduction targets

Community
- An average gap in life expectancy of 10 years exists between the best and worst areas within the West Midlands
- Poor biodiversity and natural resources are strongly correlated with poor health, low employment expectations, poverty and poor life chances
- An estimated 13% households in the West Midlands live in 'fuel poverty'

Place
- On top of national targets, the West Midlands needs to reduce emissions by an additional 2 million tonnes of CO2e due to economic geography and limited capacity for 'offshore' renewables
- Renewable energy capacity in the West Midlands will need to increase fifteen-fold to meet the national target
- Transport accounts for 30% carbon dioxide emissions in the West Midlands and use of public transport is falling
- A legacy of intense land use has resulted in the degradation of valuable natural resources

Priority Actions

Jobs	Development & coordination of initiatives to stimulate low carbon jobs & skills
Procurement	Public sector sustainable procurement to stimulate innovation & save costs
Waste	Infrastructure for diverting commercial & industrial waste from landfill
Buildings	Retrofitting existing housing stock and buildings to improve energy efficiency
Transport	Improved low carbon transport choices - flexible working, cycling, walking
Energy	Decentralised energy networks focused on regeneration areas
Environment	Environmental infrastructure to enhance water supply, flood defences & green spaces

2020 Vision

Business
- The West Midlands is a hub for low-carbon technology innovation and an international supplier, increasing productivity by 30%
- There has been growth in the building refurbishment industry and the manufacture of wind turbines, fuel cells and solar fittings
- Investment in the motor industry has taken advantage of the 'green motoring' market

Community
- The life expectancy gap has fallen to 6 years as a result of employment, less pollution and healthier lifestyles
- Up-skilling programmes have equipped the local workforce with skills to enter new job markets
- Urban farming schemes are in place; many households, hospitals and schools are reaping the associated health benefits

Place
- Regional direct carbon emissions reduced by around 30% from energy efficiency action and 20% of electricity from renewable sources
- Many communities and businesses own micro-generation facilities to produce their own energy
- Homes are built to 'zero carbon' standards
- Traffic volumes have decreased 20% in rush hour due to flexible working & dedicated coach and car-sharing lanes
- Infrastructure is in place for the use of electric cars and bicycle-sharing schemes
- New flood defences have been put in place to defend against increasingly frequent floods

Leadership & perception change – civic and corporate leaders showing that work & lifestyle changes are desirable and realistic

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Progress on priorities – 2016

Perception survey of WM 'excellent-good' progress & joint working on....

Sustainability Priority Action	2016	Since 2010
Transport – flexible & active	47%	Down 2%
Environment – green infrastructure	38%	Down 6%
Buildings – new & retrofit	36%	Down 19%
Waste - commercial	40%	Down 17%
Energy – decentralised networks	35%	Up 4%
Leadership & perception change – promoting realistic & desirable future	44%	Up 8%
Procurement – innovation & cost saving	25%	Down 22%
Jobs – coordination & promotion of low carbon support	44%	Down 5%

Our Plan – 2010-2020 Roadmap

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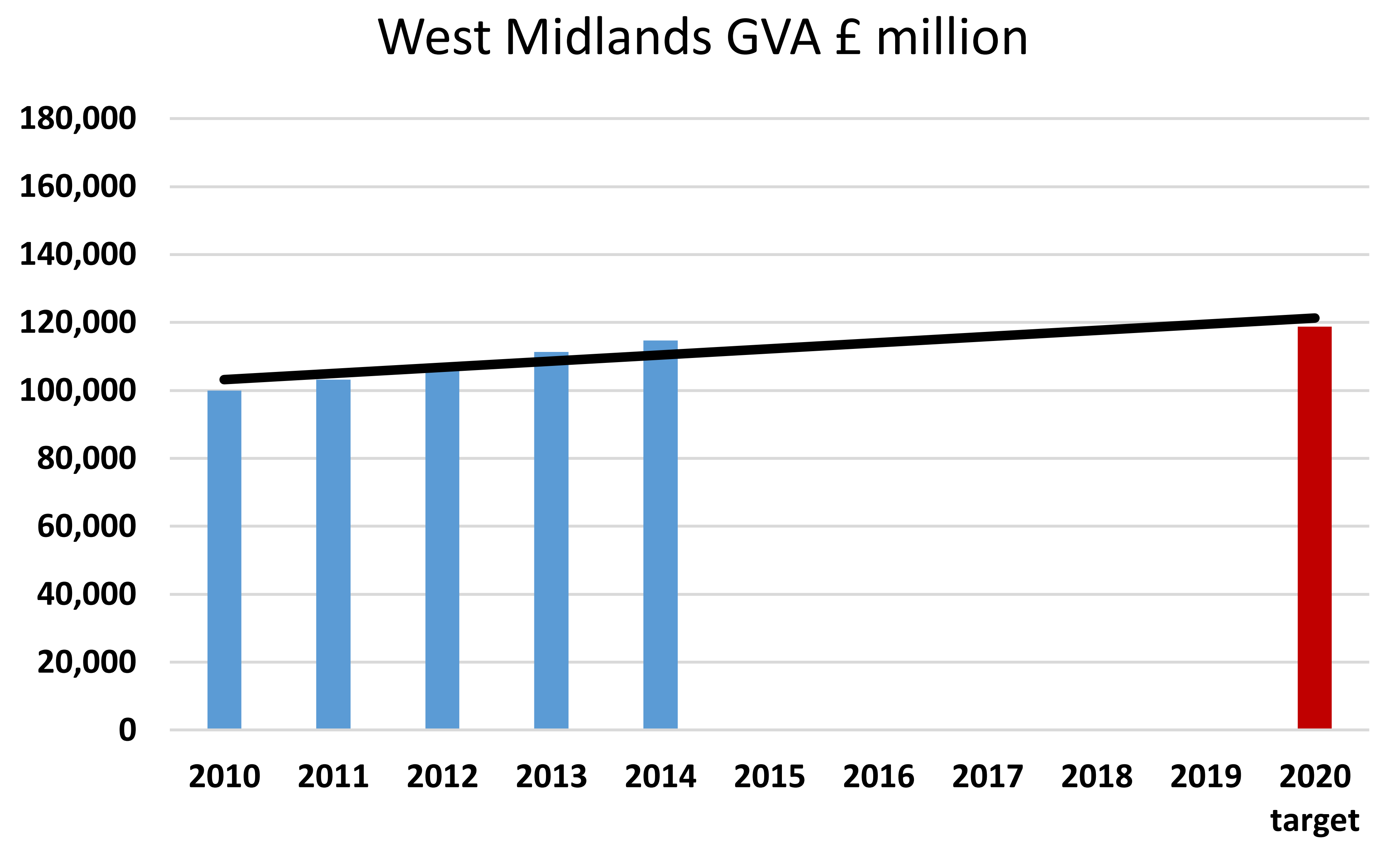
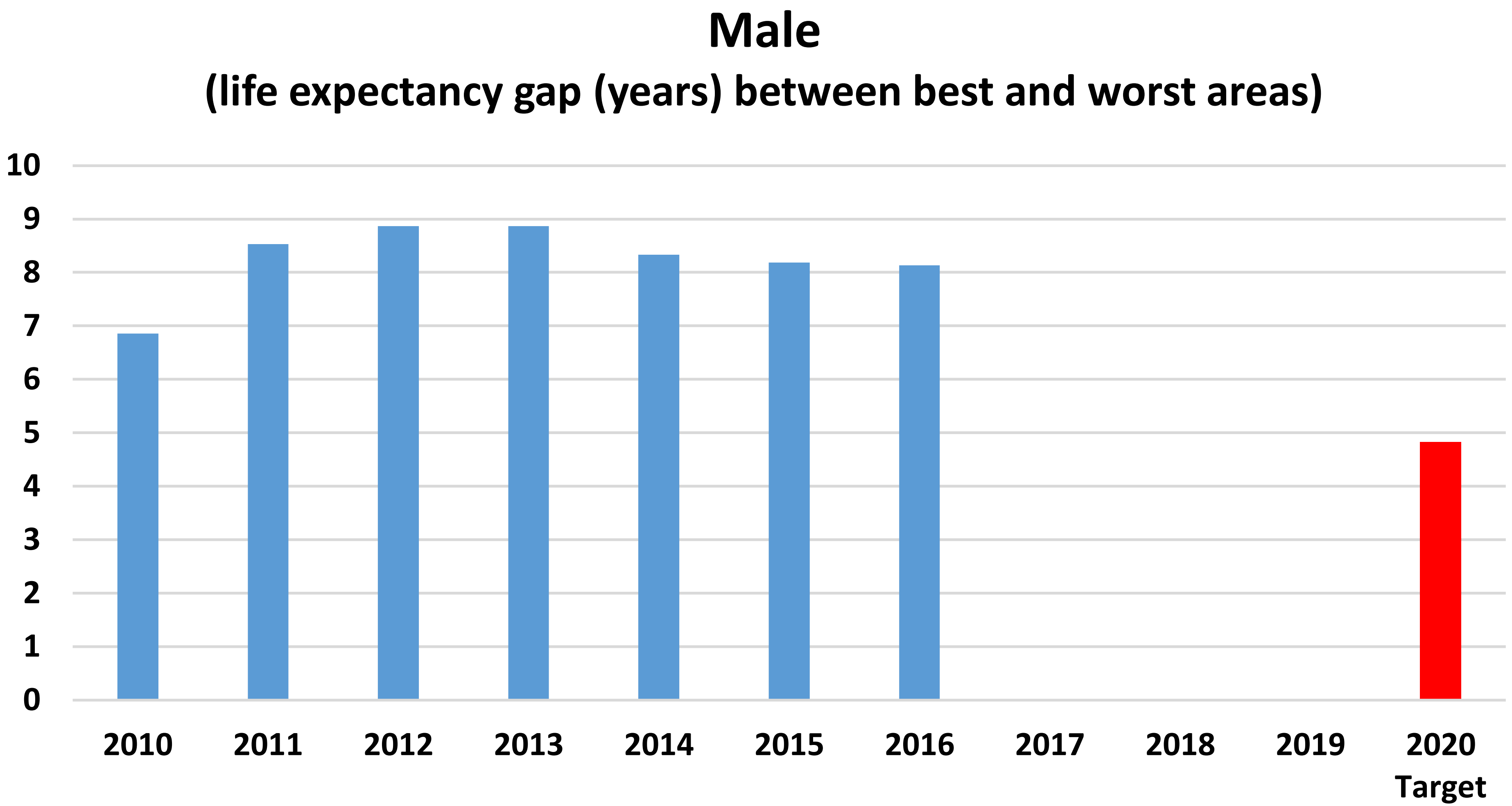
2016 progress on 2020 Vision
Business – Economic Productivity



2016 progress on 2020 Vision
Health – West Midlands



2016 progress on 2020 Vision
Carbon Emissions

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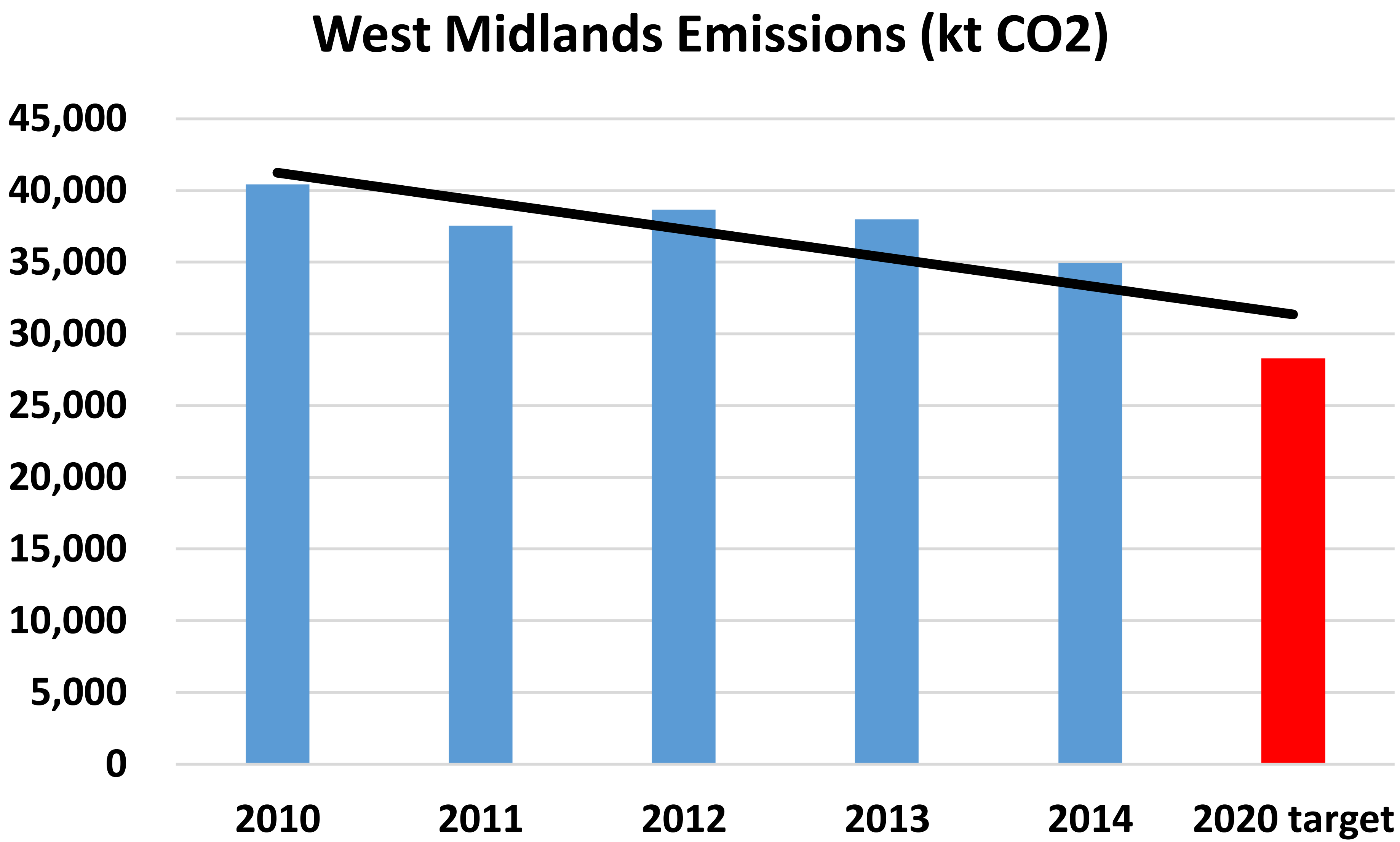

2016 progress on 2020 Vision
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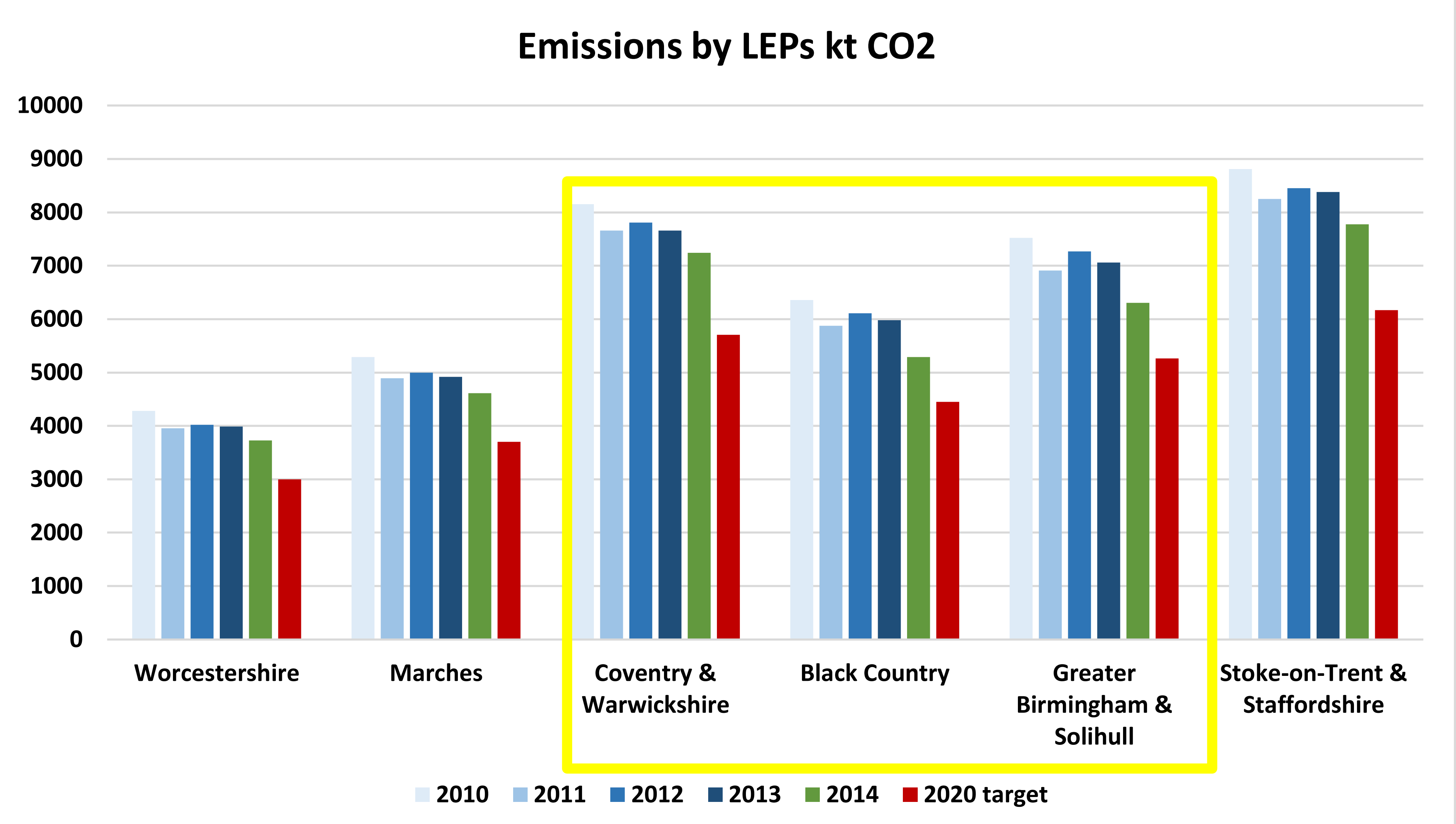

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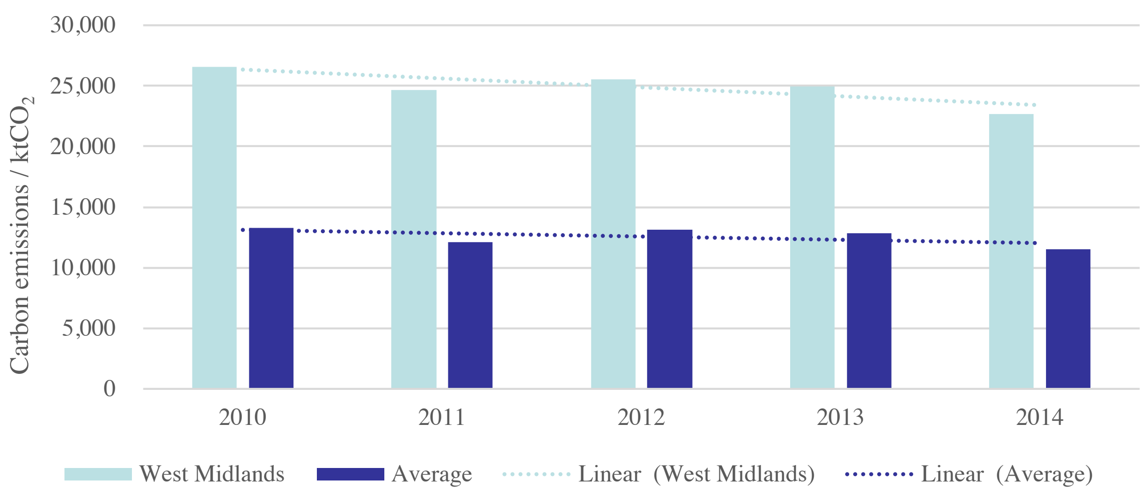
How do we compare?

Metric	Latest figure in specified year	Ranking out of 9 CAs	Rate of Change since 2010	Ranking out of 9 CAs	WMCA target	Scale of challenge
Environment						
Total carbon emissions	22,708 $ktCO_2$ (2014)	9	-14.5%	6	40% reduction from 2010 to 2030	By 2030, emissions should be ≤15,930 $ktCO_2$
Per capita carbon emissions	5.6 $ktCO_2$ (2014))	4	-16.0%	7	-	
Air quality	40 days breached (2016)	9	+2 days breached	9=	Reduction to 1 day breached by 2030	39 less days breached per year

Figure 2: Total carbon emissions in West Midlands CA compared to the average for all nine combined authorities



Benchmarking of WMCA area with other 9 Combined Authority (CA) areas

The WMCA has made better than average progress at reducing its overall and per capita emissions in the years 2010 to 2014 but remains the CA region that emits more carbon than any other.

WMCA does have carbon reduction target – which only half of CAs have.

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Where we are in 2017?

Building on a strong low carbon and sustainability policy in the West Midlands

2004 – Regional Energy Strategy and Energy WM

2007 – Climate Change Plan and Climate Change Office.

2007 - First UK low carbon regional economic strategy ‘Connecting to Success’ (AWM)

2010 - Sustainability Roadmap 2020 and annual independent progress reporting (SWM)

2012 – First Joint LEP Low Carbon Investment Prospectus (SWM)

2016 – Roadmap objectives adopted by WMCA Single Economic Plan (SEP) including carbon target & green business priority

Where we are in 2017?

2017 - Launch of Energy Capital Partnership and strategic approach and work plan.

2017 - WM Science and Innovation Audit – 75% of future market opportunities are low carbon transport, buildings, and energy.

2017- Audit of 50 local energy plans over last 10 years in WM identifying key support needs around energy and transport, buildings, business and generation.

2017 - Benchmarking of WMCA strategies with other 9 CAs reveal strong policy commitments – 2nd only to Greater Manchester.

2017- WMCA Cabinet Member and Environmental Priorities, agreed and recognising Energy Capital role with SEP.

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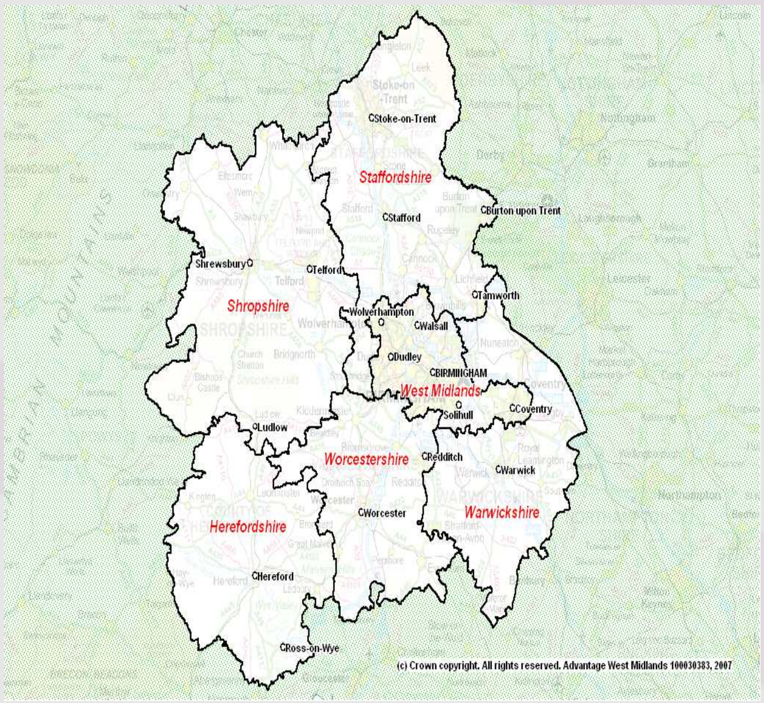
Why the West Midlands?



Suitable for piloting energy policy in devolution deal e.g. Regional Innovation Zones

- Leadership – support of new Mayor and Cabinet
- Capacity and networks – Energy Capital providing strong cross-sector partnership operating and involving other local networks e.g. SWM, Science City
- Policy and track record - Strong history of low carbon energy policy innovation and delivery
- Economic Geography – strong low carbon strengths with universities, skills, business and deployment opportunities

SWM Useful References

West Midlands Low Carbon Policy and Sustainability Monitoring….

Evidence of Success, 2009 – Summary of Low Carbon Evidence Base for Economic Strategy

http://www.sustainabilitywestmidlands.org.uk/resources/evidence-of-success-low-carbon-regional-economic-strategy/

Low Carbon 2020 Vision for West Midlands, 2009 – setting out what success might look like in 2020

http://www.sustainabilitywestmidlands.org.uk/resources/a-low-carbon-vision-for-the-west-midlands-in-2020/

West Midlands Sustainability Challenges, 2010 – baseline of key challenges and starting point for 2020 roadmap

http://www.sustainabilitywestmidlands.org.uk/resources/sustainability-challenges-for-the-west-midlands-2010/

West Midlands 2010-20 Sustainability Roadmap, 2011 – goals and priorities

http://www.sustainabilitywestmidlands.org.uk/resources/west-midlands-roadmap-to-a-sustainable-future-in-2020/

Birmingham and Black Country – Mini Stern, 2013

http://www.sustainabilitywestmidlands.org.uk/resources/the-economics-of-low-carbon-cities-a-mini-stern-review-for-birmingham-and-the-wider-urban-region/

The West Midlands Future Proofing Toolkit, 2015 – includes energy and low carbon as future key drivers

http://www.sustainabilitywestmidlands.org.uk/resources/8476/

West Midlands Sustainability Progress 2010-2016, annual progress monitoring

http://www.sustainabilitywestmidlands.org.uk/resources/swm-2020-roadmap-monitoring-report-2016/

SWM Useful References

<u>West Midlands Low Carbon Policy and Sustainability Monitoring…Continued</u>

West Midlands Combined Authority Single Economic Plan, 2016 – includes 3 Roadmap 2020 targets e.g. Carbon Reduction Target

https://www.wmca.org.uk/what-we-do/strategy

West Midlands Combined Authority, 2017 – benchmarking of sustainability metrics with other combined authorities

http://www.sustainabilitywestmidlands.org.uk/resources/combined-authority-sustainability-benchmarking-technical-report-analysis-of-metrics/

West Midlands Combined Authority - Environmental Priorities, 2017 – includes summary of benchmarking of strategies with other combined authorities. To be published in full shortly.

http://www.sustainabilitywestmidlands.org.uk/resources/wmca-environmental-priorities/

WM Local Low Carbon Strategy Analysis for West Midlands Combined Authority and Energy Capital, 2017

http://www.sustainabilitywestmidlands.org.uk/resources/west-midlands-energy-and-low-carbon-strategy-analysis-for-wmca-and-energy-capital/

Energy Capital Strategic Approach, 2017

http://www.sustainabilitywestmidlands.org.uk/resources/energy-capital-strategic-approach/

SWM Useful References

West Midlands Low Carbon Strengths

Low Carbon Investment Prospectus, 2012 – Joint WM Local Enterprise Partnership Offer
http://www.sustainabilitywestmidlands.org.uk/resources/west-midlands-low-carbon-investment-prospectus/

Joint WM LEP Statement on low carbon priorities for EU funding, 2013
http://www.sustainabilitywestmidlands.org.uk/resources/joint-statement-for-west-midlands-leps-on-intent-to-collaborate-on-eu-priorities-on-low-carbon-climate-change-and-the-environment/

Low Carbon and Climate Change Strengths in the WM, 2016 – includes searchable database
http://www.sustainabilitywestmidlands.org.uk/resources/low-carbon-and-climate-change-research-strengths-in-the-west-midlands/

West Midlands Science and Innovation Audit, 2017 – identifies low carbon market place as 75% of future opportunities for WM.
https://www.wmca.org.uk/media/1683/west-midlands-sia-final-summary-for-publication-21617.pdf

SWM Useful References

<u>**Identifying Good Practice**</u>

Good Practice in City Regions Developing the Low Carbon Economy, 2010 – includes UK and EU good practice

http://www.sustainabilitywestmidlands.org.uk/resources/good-practice-in-city-regions-developing-the-low-carbon-economy/

Review of operating options for Birmingham Green Commission, 2014 – includes UK good practice of city and regional sustainability partnerships

http://www.sustainabilitywestmidlands.org.uk/resources/review-of-operating-options-for-the-birmingham-environment-partnership-lessons-for-the-green-commission/

Good practice sustainability benchmarking of WM local authorities 2010-16

http://www.sustainabilitywestmidlands.org.uk/resources/west-midlands-local-authority-benchmarking-report-2016/

Good Sustainability Practice in Local Enterprise Partnerships 2013-2015

http://www.sustainabilitywestmidlands.org.uk/resources/fit-for-the-future-local-enterprise-partnerships-climate-ready-and-low-carbon-economy-good-practice/

New report for 2017 including LEPs, Core Cities, and EU Covenant of Mayors being finalised

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